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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/789,772 Confirmation No.: 1888
Applicant(s): Miniaci, Robert R.
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Art Unit: 2851
Examiner: Fuller, Rodney Evan
Title: Film Projector With High Efficiency Illumination
Attorney Docket No.: 037A.0001.U1(US)
Customer No.: 29,683

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Appeal Brief

Sir:

This is an appeal brief in regard to the final rejection of claims in the above-identified patent application. A Notice of Appeal was mailed to the USPTO on 1/20/2006. The fee under 37 C.F.R. §41.20(b)(2) is enclosed. Please charge deposit account 50-1924 for any fee deficiency.

I. Real Party In Interest

The real party in interest is Robert R. Miniaci.

II. Related Appeals and Interferences

There are no directly related appeals or interferences regarding this application.

III. Status Of Claims

Claims 1-6, 8-12 and 14-20 are pending in this application. Claims 7 and 13 have been cancelled. Claims 1-6, 8-12 and 14-20 have been rejected by the Examiner. The rejection of Claims 1-6, 8-12 and 14-20 is appealed.

IV. Status Of Amendments

Since the final rejection of 11/29/2005 no amendments have been filed.

V. Summary of Claimed Subject Matter

A motion picture film projector (10) is provided comprising a lamp house section (12) comprising a lamp bulb (22) and a reflector (20) (see page 8, paragraph 0034). A head section (14) is located in front of the lamp house section (12). The head section (14) comprises a shutter (84), an aperture (at gate 32), and a film movement system (86) (see page 19, paragraph 0055 and Fig. 4). An optical member (28) can be located at a junction between the lamp house section and the head section. The optical member (28) can comprise infrared filtering coatings on both a front side and a rear side of the optical member (see page 9, paragraph 0036). The lamp bulb (22) is aligned generally horizontally, wherein the reflector (20) has a rear aperture (60) with a portion of the lamp bulb extending therethrough (see page 12 et seq., paragraph 0044). The rear aperture (60) is larger (C) than a center outer

diameter (B) of the lamp bulb (see page 12 et seq., paragraph 0044).

As described in paragraphs 0047-0048 and referring to Fig. 5, the lamp bulb and reflector are sized and shaped such that an operator looking rearward from a front side of the lamp bulb and reflector, and looking generally coaxially relative to a center longitudinal axis of the lamp bulb, can see a general ring shaped gap 62 between the reflector and the lamp bulb when the lamp bulb is properly aligned relative to the reflector. The rear end 23 of the bulb 22 is maintained at a constant position relative to the reflector 20. The front end 25 of the bulb 22 is attached to the cantilevered arm 48 and is movably adjustable in vertical directions and horizontal directions to allow the bulb 22 to be properly aligned with the reflector 20. Fig. 5 shows the gap 62 when the bulb 22 is properly aligned with the reflector 20. The gap 62 is substantially uniform. If the bulb 22 is not properly aligned with the reflector 20, the gap 62 will become non-uniform.

If the front 25 of the bulb 22 is too low or too high, the bottom of the gap 62 or the top of the gap 62, respectively, will be relatively smaller than the other portions of the gap; or even non-existent if the vertical alignment is significantly off. An operator, looking rearward from the front side of the bulb and reflector, can immediately see a vertical out-of-alignment condition based upon non-uniformity of the gap 62. The operator can then merely adjust the cantilevered arm 48, such as bending the arm, to move the front end 25 of the bulb 22 to a centered position; using the change in the shape of the gap 62 as a visual guide.

Likewise, if the front 25 of the bulb 22 is too far to the left or too far to the right, the left side of the gap 62 or the right side of the gap 62, respectively, will be relatively smaller than the other portions of the gap; or even non-existent if the horizontal alignment is significantly off. An operator, looking rearward from the front side of the bulb and reflector, can immediately see a horizontal out-of-alignment condition based upon non-uniformity of the gap 62. The operator can then merely adjust the cantilevered arm 48, such as bending the arm, to move the front end 25 of the bulb 22 to a centered position; using the change in the shape of the gap 62 as a visual guide. Because the diameter C of the hole 60 is larger than the diameter B of the bulb, the visual alignment indicator provided by the gap 62 is provided.

VI. Grounds of Rejection to be Reviewed on Appeal

- A. Are claims 9, 11, 12, 14, 19 and 20 properly rejected under 35 U.S.C. §102(e) as being anticipated by Gibbon et al. (US 6,736,527)?
- B. Are claims 15 and 17 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Gibbon et al. (US 6,736,527)?
- C. Is claim 18 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Gibbon et al. (US 6,736,527) in view of Renold (US 4,778,093)?

D. Are claims 1-4, 6, 8, 10 and 16 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Gibbon et al. (US 6,736,527) in view of Belliveau (US 6,048,080)?

E. Is claim 5 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Gibbon et al. (US 6,736,527) in view of Belliveau (US 6,048,080) and Renold (US 4,778,093)?

VII. Argument

A. 35 U.S.C. §102(e); Gibbon et al. (US 6,736,527); claims 9, 11, 12, 14, 19 and 20

Claim 9

Claim 9 claims that the rear aperture of the reflector is larger than a center outer diameter of the lamp bulb. Claim 9 also claims that the lamp bulb and the reflector are sized and shaped such that an operator looking rearward from a front side of the lamp bulb and reflector, and looking generally coaxially relative to a center longitudinal axis of the lamp bulb, can see a general ring shaped gap between the reflector and the lamp bulb when the lamp bulb is aligned relative to the reflector. The features of claim 9 are clearly not taught or described in any fashion in Gibbon et al. There appears to be no ring shaped gap visible by an operator when looking down the axis of the bulb disclosed or suggested in Gibbon et al. Gibbon et al. does not "anticipate" the features recited in claim 9.

Gibbon et al. does not disclose or suggest a lamp bulb aligned generally horizontally. In Gibbon et al. the bulb 48 is aligned vertically (see Figs. 1 and 2).

Gibbon et al. does not disclose or suggest that the reflector has a rear aperture larger than a center outer diameter of the lamp bulb. Fig. 2 of Gibbon et al. merely appears to disclose that the center outer diameter of the lamp bulb 48 is about the same size as the hole 36a in the collector 36. The written text of Gibbon et al. does not even identify or use the reference number 36a shown in the drawings. The written text of Gibbon et al. does not disclose any size relationship between the hole 36a and the bulb 48. The examiner is relying totally on Fig. 2 of Gibbon et al. for his anticipation rejection. However, as can be seen in the attached copy of Fig. 2 as exhibit A in the exhibit appendix with perpendicular lines drawn down from the top of the projector, the center outer diameter of the lamp bulb 48 is about the same size as the hole 36a in the collector 36. There certainly is no disclosure from only Fig. 2 that the hole 36a is larger than the center outer diameter of the lamp bulb 48. Only after reading the present patent application does it become obvious to modify the hole 36a in Gibbon et al. to be larger than a center outer diameter of the lamp bulb 48.

Also in the exhibit appendix is Exhibit B which the examiner returned with the office action of 11/29/2006. However, the exhibit used by the examiner is faulty. Applicant's attorney used a draftsman's right angle triangle to determine if the examiner's added lines were correct, and they were not correct. The examiner enlarged Fig. 2 of Gibbon et al. and

then drew in lines which are not perpendicular to the top line shown in Fig. 2. In other words, perpendicularity of the lines added in the examiner's exhibit by the examiner are erroneous. This is in addition to the fact that the enlarged view of Fig. 2 used by the examiner is not what is disclosed in Gibbon et al. As seen in Exhibit A on the other hand, which does not use an enlargement of Fig. 2 of Gibbon et al. and drawings in reference lines accurately, Fig. 2 of Gibbon et al. merely appears to disclose that the center outer diameter of the lamp bulb 48 is about the same size as the hole 36a in the collector 36; not that the hole 36a is larger than the center outer diameter of the lamp bulb 48. Gibbon et al. does not "anticipate" the features recited in claim 9. Therefore, claim 9 is patentable and should be allowed.

Claim 11

Claim 11 is dependent upon claim 9 and adds that the assembly further comprises a lamp bulb anode adaptor. There is no disclosure or suggestion of a lamp bulb anode adaptor as recited in claim 11. Cathode assembly 44 referenced by the examiner is part of the bulb 48; and also not related to the anode. In claim 11 the lamp bulb anode adaptor is attached to a lamp bulb anode of the lamp house, and is sized and shaped to space a rear end of the lamp bulb forward from the lamp bulb anode and thereby allow the lamp bulb to be located closer to a front end of the lamp house. The examiner points to anode end portion 38 in Fig. 2 of Gibbon et al. as "anticipating" the features of claim 11. However, anode end portion 38 is not the same as applicant's claimed lamp bulb anode adaptor. There is no disclosure or suggestion that

anode end portion 38 is sized and shaped to space a rear end of the lamp bulb forward from the lamp bulb anode and thereby allow the lamp bulb to be located closer to a front end of the lamp house. The features of claim 11 are not disclosed or suggested in the art of record. Therefore, claim 11 is patentable and should be allowed.

Claim 12

Claim 12 is dependent upon claim 9 and adds that the assembly further comprises a cantilevered front cathode lamp bulb holder which extends in a forward direction and is adapted to be deflected to align a front end of the lamp bulb. In Gibbon et al. there is no disclosure or suggestion that the cathode support 58 extends in a forward direction and is adapted to be deflected to align a front end of the lamp bulb as claimed in claim 12. "56" and "62" referenced by the examiner in the last office action are part of the anode support; not related to the cathode.

Claim 14

Claim 14 claims a motion picture projector retrofit kit. The examiner has indicated that he has not given "A motion picture projector retrofit kit" patentable weight because it is in the preamble. However, the body of claim 14 claims:

a reflector mounting system for mounting the reflector to a reflector holder of a lamp house **for replacing an old reflector to be replaced;**

a lamp bulb **for replacing an old lamp bulb to be replaced;** and

a lamp bulb anode adaptor which is sized and shaped to be attached to a lamp bulb anode of the lamp house and adapted to allow a rear end of the lamp bulb to be mounted to the adaptor, wherein the adaptor is adapted to space the rear end of the lamp bulb forward from the lamp bulb anode and thereby allow the lamp bulb to be located closer to a front end of the lamp house than the old lamp bulb being replaced.

In view of the recitations in the body of the claim, the examiner has clearly made an error by not giving patentable weight to the preamble "A motion picture projector retrofit kit". Nowhere in Gibbon et al. is there a disclosure or suggestion of a motion picture projector retrofit kit as recited in claim 14. Gibbon et al. does not "anticipate" the features of claim 14. Nor are the features of claim 14 obvious in view of the cited art. Claim 14 is patentable and should be allowed. Claim 19 stands or falls with claim 14.

Claim 20

Claim 20 is a method claim. Claim 20 claims a method of aligning a lamp bulb with a reflector in a motion picture film projector. Nowhere in Gibbon et al. is there a disclosure or suggestion of a method of aligning a lamp bulb with a reflector in a motion picture film projector. Claim 20 claims:

visually observing from a front end of the lamp bulb a general ring shaped gap between a center outer diameter of the lamp bulb located in front of the rear hole and an inner perimeter of the reflector at the rear hole; and

adjustably moving a front end of the lamp bulb to make the gap substantially uniform and thereby align the lamp bulb with the reflector.

Nowhere in Gibbon et al. are these features disclosed or suggested. The examiner has stated that the manufacture of Gibbon et al. would anticipate the claimed method steps. This is ridiculous. Manufacture of the projector in Gibbon et al. does not require visually observing from a front end of the lamp bulb a general ring shaped gap between a center outer diameter of the lamp bulb located in front of the rear hole and an inner perimeter of the reflector at the rear hole; and adjustably moving a front end of the lamp bulb to make the gap substantially uniform and thereby align the lamp bulb with the reflector. The features of claim 20 are not disclosed or suggested in the art of record. Therefore, claim 20 is patentable and should be allowed.

B. 35 U.S.C. §103(a); Gibbon et al. (US 6,736,527); claims 15 and 17

Claims 15 and 17 stand or fall with claim 14.

C. 35 U.S.C. §103(a); Gibbon et al. (US 6,736,527) in view of Renold (US 4,778,093); claim 18

Claim 18 stands or falls with claim 17.

D. 35 U.S.C. §103(a); Gibbon et al. (US 6,736,527) in view of Belliveau (US 6,048,080); claims 1-4, 6, 8, 10 and 16

Claim 1

Claim 1 claims a motion picture film projector comprising a lamp bulb is aligned generally horizontally, wherein the reflector has a rear aperture with a portion of the lamp bulb extending therethrough, wherein the rear aperture is larger than a center outer diameter of the lamp bulb.

Gibbon et al. does not disclose or suggest that the bulb 48 is aligned generally horizontally. Just the opposite, Gibbon et al. discloses that the bulb 48 is aligned vertically (see Figs. 1 and 2).

Gibbon et al. does not disclose or suggest that the reflector has a rear aperture larger than a center outer diameter of the lamp bulb. Fig. 2 of Gibbon et al. merely appears to disclose that the center outer diameter of the lamp bulb 48 is about the same size as the hole 36a in the collector 36. The written text of Gibbon et al. does not even identify or use the reference number "36a" shown in the drawings. The written text of Gibbon et al. does not disclose any size relationship between the hole 36a and the bulb 48. The examiner is relying totally on Fig. 2 of Gibbon et al. for his rejection. However, as can be seen in the attached copy of Fig. 2 as Exhibit A in the exhibit appendix with perpendicular lines drawn down from the top of the projector, the center outer diameter of the lamp bulb 48 is about the same size as the hole 36a in the collector 36. There certainly is no disclosure from only Fig. 2 that the hole 36a is larger than the center outer diameter of the lamp bulb 48. Only after reading the present patent application does it become obvious

to modify the hole 36a in Gibbon et al. to be larger than a center outer diameter of the lamp bulb 48.

As noted above with regard to Claim 9, in Exhibit B the examiner enlarged Fig. 2 of Gibbon et al. and then drew in lines which are not perpendicular to the top line shown in Fig. 2. In other words, perpendicularity of the lines added in the examiner's exhibit by the examiner are erroneous. This is in addition to the fact that the enlarged view of Fig. 2 used by the examiner is not what is disclosed in Gibbon et al. As seen in Exhibit A on the other hand, which does not use an enlargement of Fig. 2 of Gibbon et al. and drawings in reference lines accurately, Fig. 2 of Gibbon et al. merely appears to disclose that the center outer diameter of the lamp bulb 48 is about the same size as the hole 36a in the collector 36; not that the hole 36a is larger than the center outer diameter of the lamp bulb 48. Gibbon et al. does not "suggest" the features recited in claim 1. Belliveau does nothing to aid the deficiencies of Gibbon et al. Therefore, claim 1 is patentable and should be allowed.

Claim 4 stands or falls with claim 1.

Claim 2

Claim 2 is dependent upon claim 1 and adds that the lamp house further comprises a lamp bulb anode adaptor, attached to a lamp bulb anode of the lamp house, which is sized and shaped to space a rear end of the lamp bulb forward from the lamp bulb anode and thereby allow the lamp bulb to be located closer to a front end of the lamp house. As noted above with reference to claim 11, there is no disclosure or suggestion of

a lamp bulb anode adaptor in Gibbon et al. Cathode assembly 44 referenced by the examiner is part of the bulb 48; and also not related to the anode. In claim 2 the lamp bulb anode adaptor is attached to a lamp bulb anode of the lamp house, and is sized and shaped to space a rear end of the lamp bulb forward from the lamp bulb anode and thereby allow the lamp bulb to be located closer to a front end of the lamp house. The examiner points to anode end portion 38 in Fig. 2 of Gibbon et al. However, anode end portion 38 is not the same as applicant's claimed lamp bulb anode adaptor. There is no disclosure or suggestion that anode end portion 38 is sized and shaped to space a rear end of the lamp bulb forward from the lamp bulb anode and thereby allow the lamp bulb to be located closer to a front end of the lamp house. The features of claim 2 are not disclosed or suggested in the art of record. Belliveau does nothing to aid the deficiencies of Gibbon et al. Therefore, claim 2 is patentable and should be allowed.

Claim 3

Claim 3 is dependent upon claim 2 and adds that the lamp house further comprises a cantilevered front cathode lamp bulb holder which extends in a forward direction and is adapted to be deflected to align a front end of the lamp bulb. As noted above with reference to claim 12, in Gibbon et al. there is no disclosure or suggestion that the cathode support 58 extends in a forward direction and is adapted to be deflected to align a front end of the lamp bulb. "56" and "62" referenced by the examiner in the last office action are part of the anode support; not related to the cathode. Belliveau does nothing

to aid the deficiencies of Gibbon et al. The features of claim 3 are not disclosed or suggested in the art of record. Therefore, claim 3 is patentable and should be allowed.

Claim 6

Claim 6 is dependent upon claim 1 and adds that the head section comprises two lens collars at a front end of the head section, and wherein at least one of the lens collars is an eccentric collar which is adapted to be rotated to align a flat wide screen image on screen and correct for a vertically off-center aperture in the head section. The examiner makes reference to "28" in Gibbon et al. for his rejection. However, "28" is merely described in Gibbon et al. as a projection lens assembly. There is no disclosure or suggestion of two lens collars at a front end of the head section, and wherein at least one of the lens collars is an eccentric collar which is adapted to be rotated to align a flat wide screen image on screen and correct for a vertically off-center aperture in the head section as recited in claim 6. The features of claim 6 are not disclosed or suggested in the cited art. Therefore, claim 6 is patentable and should be allowed.

Claim 8

Claim 8 is dependent upon claim 1 and adds that the lamp bulb and the reflector are sized and shaped such that an operator looking rearward from a front side of the lamp bulb and reflector, and looking generally coaxially relative to a center longitudinal axis of the lamp bulb, can see a general ring shaped gap between the reflector and the lamp bulb when

the lamp bulb is aligned relative to the reflector. There is no disclosure or suggestion of the features of claim 8 in the cited art. Therefore, claim 8 is patentable and should be allowed.

Claim 10

Claim 10 is dependent upon claim 9. Claim 10 stands or falls with claim 9.

Claim 16

Claim 16 is dependent upon claim 14. Claim 16 stands or falls with claim 14.

E. 35 U.S.C. §103(a); Gibbon et al. (US 6,736,527) in view of Belliveau (US 6,048,080) and Renold (US 4,778,093); claim 5

Claim 5

Claim 5 is dependent upon claim 4. Claim 5 stands or falls with claim 4.

VIII. Claims Appendix

Attached.

IX. Evidence Appendix

Attached.

X. Related Proceedings Appendix

None.

Conclusion

In view of the arguments presented above, it is respectfully requested that the Examiner's rejections of Claims 1-6, 8-12 and 14-20 be reversed.

Respectfully submitted,

Mark F. Harrington 2/22/06
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2-22-06
Date

Ann Okrentowich
Name of Person Making Deposit

CLAIMS APPENDIX

1. A motion picture film projector comprising:

a lamp house section comprising a lamp bulb and a reflector;

a head section located in front of the lamp house section, the head section comprising a shutter, an aperture, and a film movement system; and

an optical member located proximate a junction between the lamp house section and the head section, wherein the optical member comprises infrared filtering coatings on both a front side and a rear side of the optical member, and wherein the lamp bulb is aligned generally horizontally, wherein the reflector has a rear aperture with a portion of the lamp bulb extending therethrough, wherein the rear aperture is larger than a center outer diameter of the lamp bulb.

2. A motion picture film projector as in claim 1 wherein the lamp house further comprises a lamp bulb anode adaptor, attached to a lamp bulb anode of the lamp house, which is sized and shaped to space a rear end of the lamp bulb forward from the lamp bulb anode and thereby allow the lamp bulb to be located closer to a front end of the lamp house.

3. A motion picture film projector as in claim 2 wherein the lamp house further comprises a cantilevered front cathode lamp bulb holder which extends in a forward direction and is adapted to be deflected to align a front end of the lamp bulb.

4. A motion picture film projector as in claim 1 wherein the shutter comprises a shutter of less than about 75°.

5. A motion picture film projector as in claim 4 wherein the film movement system comprises a high speed intermittent.

6. A motion picture film projector as in claim 1 wherein the head section comprises two lens collar at a front end of the head section, and wherein at least one of the lens collars is an eccentric collar which is adapted to be rotated to align a flat wide screen image on screen and correct for a vertically off-center aperture in the head section.

7. (Canceled)

8. A motion picture film projector as in claim 1 wherein the lamp bulb and the reflector are sized and shaped such that an operator looking rearward from a front side of the lamp bulb and reflector, and looking generally coaxially relative to a center longitudinal axis of the lamp bulb, can see a general ring shaped gap between the reflector and the lamp bulb when the lamp bulb is aligned relative to the reflector.

9. A motion picture film projector lamp house assembly comprising:

a lamp bulb aligned generally horizontally;

a reflector having a rear aperture with a portion of the lamp bulb extending therethrough, wherein the rear aperture is larger than a center outer diameter of the lamp bulb,

wherein the lamp bulb and the reflector are sized and shaped such that an operator looking rearward from a front side of the lamp bulb and reflector, and looking

generally coaxially relative to a center longitudinal axis of the lamp bulb, can see a general ring shaped gap between the reflector and the lamp bulb when the lamp bulb is aligned relative to the reflector.

10. A motion picture film projector lamp house assembly as in claim 9 further comprising an infrared filter at a front end of the lamp house having infrared coatings on both a front side and a rear side of the filter.

11. A motion picture film projector lamp house assembly as in claim 9 further comprises a lamp bulb anode adaptor, attached to a lamp bulb anode of the lamp house, which is sized and shaped to space a rear end of the lamp bulb forward from the lamp bulb anode and thereby allow the lamp bulb to be located closer to a front end of the lamp house.

12. A motion picture film projector lamp house assembly as in claim 9 further comprising a cantilevered front cathode lamp bulb holder which extends in a forward direction and is adapted to be deflected to align a front end of the lamp bulb.

13. (Canceled)

14. A motion picture film projector retrofit kit comprising:

a reflector;

a reflector mounting system for mounting the reflector to a reflector holder of a lamp house for replacing an old reflector to be replaced;

a lamp bulb for replacing an old lamp bulb to be replaced; and

a lamp bulb anode adaptor which is sized and shaped to be attached to a lamp bulb anode of the lamp house and adapted to allow a rear end of the lamp bulb to be mounted to the adaptor, wherein the adaptor is adapted to space the rear end of the lamp bulb forward from the lamp bulb anode and thereby allow the lamp bulb to be located closer to a front end of the lamp house than the old lamp bulb being replaced.

15. A motion picture film projector retrofit kit as in claim 14 wherein the reflector comprises a glass reflector for replacing a metal old reflector.

16. A motion picture film projector retrofit kit as in claim 14 further comprising an infrared filter having infrared filter coatings on both a front side and a rear side of the filter.

17. A motion picture film projector retrofit kit as in claim 14 further comprising a shutter comprising a shutter angle of less than about 75° .

18. A motion picture film projector retrofit kit as in claim 17 further comprising a high speed intermittent.

19. A motion picture film projector retrofit kit as in claim 14 further comprising a lamp house section cooling fan.

20. A method for aligning a lamp bulb with a reflector in a motion picture film projector comprising:

providing the reflector with a rear hole;

positioning the lamp bulb to pass through the rear hole of the reflector;

visually observing from a front end of the lamp bulb a general ring shaped gap between a center outer diameter of the lamp bulb located in front of the rear hole and an inner perimeter of the reflector at the rear hole; and

adjustably moving a front end of the lamp bulb to make the gap substantially uniform and thereby align the lamp bulb with the reflector.

EVIDENCE APPENDIX



